OLDO



OIPE

RAW SEQUENCE LISTING

DATE: 02/15/2002 TIME: 14:43:29

PATENT APPLICATION: US/10/055,364

Input Set : A:\Gammaherpes.txt

Output Set: N:\CRF3\02152002\J055364.raw

ENTERED

```
3 <110> APPLICANT: Patience, Clive
      5 <120> TITLE OF INVENTION: Gamma Herpes Virus DNA and Methods of Use
      7 <130> FILE REFERENCE: 61750-379
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/055,364
C--> 9 <141> CURRENT FILING DATE: 2002-01-23
      9 <150> PRIOR APPLICATION NUMBER: US/09/612,204
     10 <151> PRIOR FILING DATE: 2000-07-07
     12 <150> PRIOR APPLICATION NUMBER: US/60/142,736
     13 <151> PRIOR FILING DATE: 1999-07-08
     15 <150> PRIOR APPLICATION NUMBER: US/60/168,532
     16 <151> PRIOR FILING DATE: 1999-12-02
     18 <160> NUMBER OF SEQ ID NOS: 55
     20 <170> SOFTWARE: PatentIn version 3.0
     22 <210> SEO ID NO: 1
     23 <211> LENGTH: 585
     24 <212> TYPE: DNA
C--> 25 <213> ORGANISM: artificial
     27 <220> FEATURE:
     28 <223> OTHER INFORMATION: Fragment from Swine Gamma Herpesvirus DNA coding for
glycoprotein
     29
             B envelope protein
     31 <400> SEQUENCE: 1
     32 aatcttcgta tcagaataaa taacattttg gaagatttgt caaaggcatg gtgtcgtgag
                                                                               60
     33 cagcatagag ctgctctggt gtggaatgag ctcagcaaga ttaatcccac aagcgtcatg
                                                                              120
     34 agcatgattt acaatagacc cgtatcagcc aaaagaatag gagatgtcat ttcagtctct
     35 aactgtattg tggtagacca aaccagtgtc tcattacata aaagtctcag gcttctcagt
                                                                              240
    36 gcatcggatg aaaagtgctt ctctagacct ccagtgacat ttaagtttat gaatgacagt
                                                                              300
     37 actatttaca aaggqcaact aggagtcaat aatgagattc tcttaaccac aacatacctt
                                                                              360
     38 gaaacatgtc aggaaaacac tgagtattac tttcaggcaa agacagacat gtacatttac'
                                                                              420
    39 aaaaactatg agcatttgaa gactgtgcct ttatcttcga tcaccacact agatacattt
                                                                              480
    40 atagecetta attttacaet attggagaat qttgaettta aaqteattga aetttataee
                                                                              540
    41 agggacgaga agaggcttag taatgtcttt gacattgaaa caatg
                                                                              585
    44 <210> SEQ ID NO: 2
    45 <211> LENGTH: 195
    46 <212> TYPE: PRT
C--> 47 <213> ORGANISM: artificial
    49 <220> FEATURE:
    50 <223> OTHER INFORMATION: Deduced amino acid sequence derived from the first open
reading
             frame of the DNA of SEQ ID NO:
    53 <400> SEQUENCE: 2
    54 Asn Leu Arg Ile Arg Ile Asn Asn Ile Leu Glu Asp Leu Ser Lys Ala
```

57 Trp Cys Arg Glu Gln His Arg Ala Ala Leu Val Trp Asn Glu Leu Ser

58

20

25

30

DATE: 02/15/2002

PATENT APPLICATION: US/10/055,364 TIME: 14:43:29 Input Set : A:\Gammaherpes.txt Output Set: N:\CRF3\02152002\J055364.raw 60 Lys Ile Asn Pro Thr Ser Val Met Ser Met Ile Tyr Asn Arg Pro Val 40 63 Ser Ala Lys Arg Ile Gly Asp Val Ile Ser Val Ser Asn Cys Ile Val 66 Val Asp Gln Thr Ser Val Ser Leu His Lys Ser Leu Arg Leu Leu Ser 70 69 Ala Ser Asp Glu Lys Cys Phe Ser Arg Pro Pro Val Thr Phe Lys Phe 85 72 Met Asn Asp Ser Thr Ile Tyr Lys Gly Gln Leu Gly Val Asn Asn Glu 105 75 Ile Leu Leu Thr Thr Thr Tyr Leu Glu Thr Cys Gln Glu Asn Thr Glu 120 78 Tyr Tyr Phe Gln Ala Lys Thr Asp Met Tyr Ile Tyr Lys Asn Tyr Glu 135 140 81 His Leu Lys Thr Val Pro Leu Ser Ser Ile Thr Thr Leu Asp Thr Phe 150 155 84 Ile Ala Leu Asn Phe Thr Leu Leu Glu Asn Val Asp Phe Lys Val Ile 165 170 87 Glu Leu Tyr Thr Arg Asp Glu Lys Arg Leu Ser Asn Val Phe Asp Ile 180 185 90 Glu Thr Met 91 195 93 <210> SEQ ID NO: 3 94 <211> LENGTH: 19 95 <212> TYPE: DNA C--> 96 <213> ORGANISM: artificial 98 <220> FEATURE: 99 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences 102 mgaacaacgt yaaytgyga 105 <210> SEQ ID NO: 4 106 <211> LENGTH: 19 107 <212> TYPE: DNA C--> 108 <213> ORGANISM: artificial 110 <220> FEATÜRE: 111 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences 114 mgaacaacgt yaaytgyct 116 <210> SEQ ID NO: 5 19 117 <211> LENGTH: 17 118 <212> TYPE: DNA C--> 119 <213> ORGANISM: artificial 121 <220> FEATURE: 122 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences 125 mgaacaacgt yaaytgy 128 <210> SEQ ID NO: 6 17 129 <211> LENGTH: 19 130 <212> TYPE: DNA

RAW SEQUENCE LISTING

DATE: 02/15/2002

TIME: 14:43:29

```
Input Set : A:\Gammaherpes.txt
                       Output Set: N:\CRF3\02152002\J055364.raw
  C--> 131 <213> ORGANISM: artificial
       133 <220> FEATURE:
       134 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences
       136 <400> SEQUENCE: 6
       137 cartcartwt gcmtaygac
       140 <210> SEQ ID NO: 7
                                                                                  19
       141 <211> LENGTH: 19
       142 <212> TYPE: DNA
  C--> 143 <213> ORGANISM: artificial
       145 <220> FEATURE:
       146 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences
       148 <220> FEATURE:
       149 <221> NAME/KEY: misc_feature
      150 <223> OTHER INFORMATION: n=i
      152 <400> SEQUENCE: 7
   > 153 carntncart wtgcmtayg
                                                                                 19
      156 <210> SEQ ID NO: 8
      157 <211> LENGTH: 20
      158 <212> TYPE: DNA
 C--> 159 <213> ORGANISM: artificial
      161 <220> FEATURE:
      162 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences
      164 <400> SEQUENCE: 8
      165 gtbatgwsha gvathtaygg
                                                                                 20
      168 <210> SEQ ID NO: 9
      169 <211> LENGTH: 20
      170 <212> TYPE: DNA
 C--> 171 <213> ORGANISM: artificial
      173 <220> FEATURE:
     174 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences
     176 <400> SEQUENCE: 9
     177 gtbatgwshg cvathtaygg
                                                                                 20
     180 <210> SEQ ID NO: 10
     181 <211> LENGTH: 20
     182 <212> TYPE: DNA
C--> 183 <213> ORGANISM: artificial
     185 <220> FEATURE:
     186 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences
     188 <220> FEATURE:
     189 <221> NAME/KEY: misc_feature
     190 <223> OTHER INFORMATION: n=i
     192 <400> SEQUENCE: 10
* 193 swcatnacrs tngtnggrtt
     196 <210> SEQ ID NO: 11
                                                                                20
     197 <211> LENGTH: 26
     198 <212> TYPE: DNA
C--> 199 <213> ORGANISM: artificial
     201 <220> FEATURE:
    202 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/055,364

DATE: 02/15/2002

PATENT APPLICATION: US/10/055,364 TIME: 14:43:29 Input Set : A:\Gammaherpes.txt Output Set: N:\CRF3\02152002\J055364.raw 204 <220> FEATURE: 205 <221> NAME/KEY: misc_feature 206 <223> OTHER INFORMATION: n=i 208 <400> SEQUENCE: 11 √
→ 209 trngygtart arttrtaytc yctraa 212 <210> SEQ ID NO: 12 26 213 <211> LENGTH: 21 214 <212> TYPE: DNA C--> 215 <213> ORGANISM: artificial 217 <220> FEATURE: 218 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences 220 <400> SEQUENCE: 12 221 gtartarttr taytcyctra a 224 <210> SEQ ID NO: 13 225 <211> LENGTH: 21 226 <212> TYPE: DNA C--> 227 <213> ORGANISM: artificial 229 <220> FEATURE: 230 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences 232 <400> SEQUENCE: 13 233 ctgraarttr taytcycgra a 236 <210> SEQ ID NO: 14 21 237 <211> LENGTH: 26 238 <212> TYPE: DNA C--> 239 <213> ORGANISM: artificial 241 <220> FEATURE: 242 <223> OTHER INFORMATION: PCR amplification primer for pGHV-gpB gene sequences 244 <220> FEATURE: 245 <221> NAME/KEY: misc_feature 246 <223> OTHER INFORMATION: n=i248 <400> SEQUENCE: 14 MG> 249 tgngyctgra arttrtaytc ycgraa 252 <210> SEQ ID NO: 15 26 253 <211> LENGTH: 20 254 <212> TYPE: DNA C--> 255 <213> ORGANISM: artificial 257 <220> FEATURE: 258 <223> OTHER INFORMATION: PCR amplification primer for Epstein-Barr Virus genome 261 agaactaccg tcaactgcct 264 <210> SEQ ID NO: 16 20 265 <211> LENGTH: 18 266 <212> TYPE: DNA C--> 267 <213> ORGANISM: artificial 269 <220> FEATURE: 270 <223> OTHER INFORMATION: PCR amplification primer for Epstein-Barr Virus genome 272 <400> SEQUENCE: 16 273 agaactaccg tcaactgc 276 <210> SEQ ID NO: 17 18

RAW SEQUENCE LISTING

RAW SEQUENCE LISTING DATE: 02/15/2002 PATENT APPLICATION: US/10/055,364 TIME: 14:43:29

Input Set : A:\Gammaherpes.txt

Output Set: N:\CRF3\02152002\J055364.raw

```
277 <211> LENGTH: 21
      278 <212> TYPE: DNA
 C--> 279 <213> ORGANISM: artificial
      281 <220> FEATURE:
      282 <223> OTHER INFORMATION: PCR amplification primer for Epstein-Barr Virus genome
      284 <400> SEQUENCE: 17
      285 cagatccaat ttgcctacga c
                                                                                 21
      287 <210> SEQ ID NO: 18
      288 <211> LENGTH: 19
      289 <212> TYPE: DNA
C--> 290 <213> ORGANISM: artificial
      292 <220> FEATURE:
      293 <223> OTHER INFORMATION: PCR amplification primer for Epstein-Barr Virus genome
      295 <400> SEQUENCE: 18
      296 cagatccaat ttgcctacg
                                                                                 19
     299 <210> SEQ ID NO: 19
     300 <211> LENGTH: 20
     301 <212> TYPE: DNA
C--> 302 <213> ORGANISM: artificial
     304 <220> FEATURE:
     305 <223> OTHER INFORMATION: PCR amplification primer for Epstein-Barr Virus genome
     307 <400> SEQUENCE: 19
     308 gtcatgtcca gcatctacgg .
                                                                                 20
     311 <210> SEQ ID NO: 20
     312 <211> LENGTH: 20
     313 <212> TYPE: DNA
C--> 314 <213> ORGANISM: artificial
     316 <220> FEATURE:
     317 <223> OTHER INFORMATION: PCR amplification primer for Epstein-Barr Virus genome
     319 <400> SEQUENCE: 20
     320 gacatgacgg tggttggatt
                                                                                 20
     323 <210> SEQ ID NO: 21
     324 <211> LENGTH: 26
     325 <212> TYPE: DNA
C--> 326 <213> ORGANISM: artificial
     328 <220> FEATURE:
     329 <223> OTHER INFORMATION: PCR amplification primer for Epstein-Barr Virus genome
     331 <400> SEQUENCE: 21
     332 tgcgcctgga agttgtactc ccggaa
                                                                                 26
     335 <210> SEQ ID NO: 22
     336 <211> LENGTH: 21
     337 <212> TYPE: DNA
C--> 338 <213> ORGANISM: artificial
     340 <220> FEATURE:
     341 <223> OTHER INFORMATION: PCR amplification primer for Epstein-Barr Virus genome
     343 <400> SEQUENCE: 22
```

344 ctggaagttg tactcccgga a

347 <210> SEQ ID NO: 23 348 <211> LENGTH: 2598 21

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/055,364

DATE: 02/15/2002
TIME: 14:43:30

Input Set : A:\Gammaherpes.txt

Output Set: N:\CRF3\02152002\J055364.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:25 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1 L:47 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2 L:96 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3 L:108 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4 L:119 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5 L:131 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6 L:143 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7 L:153 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:7 L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 L:159 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8 L:171 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9 L:183 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10 L:193 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:10 L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 L:199 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11 $L:209 \ M:258 \ W:$ Mandatory Feature missing, <222> not found for SEQ ID#:11 L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 L:215 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12 L:227 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13 L:239 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14 L:249 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:14 L:249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 L:255 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15 L:267 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:16 L:279 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:17 L:290 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:18 L:302 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:19 L:314 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:20 L:326 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:21 L:338 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:22 L:350 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:23 L:403 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:24 L:577 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:25 L:589 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:26 L:601 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:27 L:614 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:28 L:627 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:29 L:628 M:283 W: Missing Blank Line separator, <220> field identifier L:639 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:30 L:652 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:31 L:665 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:32 L:678 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:33 L:691 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:34 L:704 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:35 L:717 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:36 L:2338 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:47 VERIFICATION SUMMARY

DATE: 02/15/2002 364 TIME: 14:43:30

PATENT APPLICATION: US/10/055,364

Input Set : A:\Gammaherpes.txt

Output Set: N:\CRF3\02152002\J055364.raw

L:2360 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:48 L:2489 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:51 L:2508 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:52 L:2509 M:283 W: Missing Blank Line separator, <220> field identifier L:2526 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:53 L:2543 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:54

L:2557 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:55